This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A nucleic acid molecule comprising a sequence encoding a cytoplasmic signalling molecule ~~comprising~~ that comprises at least two cytoplasmic signalling sequences, wherein at least one of the cytoplasmic signalling ~~sequence~~ sequences is derived from CD134 or ~~ICOS~~ the human inducible co-stimulator.

2. (currently amended) A nucleic acid molecule according to claim 1, wherein at least one of the cytoplasmic signalling ~~sequence~~ sequences is a primary cytoplasmic signalling sequence.

3-5. (canceled)

6. (currently amended) A nucleic acid molecule according to claim 1, wherein at least one of the cytoplasmic signalling ~~sequence~~ sequences is a secondary cytoplasmic signalling sequence.

7. (canceled)

8. (currently amended) A nucleic acid molecule according to ~~any one of claims 2 to 7~~ claim 2, ~~which encodes~~ comprising a sequence encoding a cytoplasmic signaling molecule that comprises three cytoplasmic signalling sequences.

9. (currently amended) A nucleic acid molecule according to ~~any one of claims 2 to 7~~ claim 2, wherein the first cytoplasmic signalling sequence encoded ~~for~~ in a reading frame is derived from CD134 or ~~ICOS~~ the human inducible co-stimulator.

10. (currently amended) A nucleic acid molecule according to claim 9, which encodes i) a cytoplasmic signalling sequence derived from CD134 followed in a reading frame by ii) a cytoplasmic signalling sequence derived from TCRζ.

11. (currently amended) A nucleic acid molecule according to claim 9, which encodes i) a cytoplasmic signalling sequence derived from ~~ICOS~~ the human inducible co-stimulator followed in a reading frame by ii) a cytoplasmic signalling sequence derived from TCRζ.

12. (currently amended) A nucleic acid molecule according to ~~any one of claims 2 to 7~~ claim 2, wherein the second cytoplasmic signalling sequence encoded ~~for~~ in a reading frame is derived from CD134 or ~~ICOS~~ the human inducible co-stimulator.

13-15. (canceled)

16. (currently amended) A nucleic acid molecule according to ~~claim 15~~ claim 8 which encodes in a reading frame i) a cytoplasmic signalling sequence derived from CD28, ii) a cytoplasmic signalling domain derived from TCRζ, and iii) a cytoplasmic signalling sequence derived from CD134.

17. (currently amended) A nucleic acid molecule according to ~~claim 15~~ claim 8 which encodes in a reading frame i) a cytoplasmic signalling sequence derived from CD28, ii) a cytoplasmic signalling domain derived from TCRζ, and iii) a cytoplasmic signalling sequence derived from ~~ICOS~~ the human inducible co-stimulator.

18. (currently amended) A nucleic acid molecule encoding a chimeric receptor protein, which comprises an extracellular ligand-binding domain, a transmembrane domain and a cytoplasmic signalling domain, wherein the cytoplasmic signalling domain is encoded by a nucleic acid sequence according to ~~any one of claims 1 to 17~~ claim 1.

19. (currently amended) A nucleic acid molecule encoding a chimeric receptor protein, which comprises an extracellular ligand-binding domain, a transmembrane domain and a cytoplasmic signalling domain, wherein the cytoplasmic signalling domain comprises a single cytoplasmic signalling sequence derived from CD134 or the human inducible co-stimulator.

20. (canceled)

21. (currently amended) A nucleic acid molecule according to ~~claims 18 and 20~~ claim 18 wherein the extracellular ligand-binding domain is an antibody, or an antigen-binding fragment thereof.

22-24. (canceled)

25. (currently amended) A vector comprising a nucleic acid molecule according to ~~any one of the preceding claims~~ claim 1.

26. (currently amended) A host cell containing a nucleic acid molecule according to ~~any one of claims 1 to 24, or a vector according to claim 25~~ claim 1.

27. (canceled)

28. (currently amended) A chimeric receptor protein encoded by a nucleic acid molecule according to ~~any one of claims 18-20~~ claim 18.

29. (canceled)

30. (currently amended) A host cell according to ~~claims 26 or 29~~ claim 26, which is a resting or senescent T-lymphocyte.

31-34. (canceled)

35. (new) A method for treating HIV infection, asthma, eczema, cystic fibrosis, sickle cell anemia, psoriasis, multiple sclerosis, organ transplant rejection, graft-versus-host disease, diabetes, or cancer comprising administering to a patient suffering from such a disease or disorder a therapeutically effective amount of a nucleic acid molecule according to claim 1.

36. (new) A method for treating HIV infection, asthma, eczema, cystic fibrosis, sickle cell anemia, psoriasis, multiple sclerosis, organ transplant rejection, graft-versus-host disease, diabetes, or cancer comprising administering to a patient suffering from such a disease or disorder a therapeutically effective amount of a nucleic acid molecule according to claim 18.

37. (new) A composition comprising a nucleic acid molecule according to claim 1 in conjunction with a pharmaceutically acceptable excipient.